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FILE 'HOME' ENTERED AT 11:53:20 ON 04 FEB 2004

=> file agricola biosis embase caplus
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FILE 'BIOSIS' ENTERED AT 11:53:30 ON 04 FEB 2004
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=> s tomato and isoprenoid and DXP(w)synthase
L1 4 TOMATO AND ISOPRENOID AND DXP(W) SYNTHASE

=> d l1 1-4 ti

L1 ANSWER 1 OF 4 AGRICOLA Compiled and distributed by the National
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(2004) on STN

TI 1-Deoxy-D-xylulose 5-phosphate reductoisomerase and plastid
isoprenoid biosynthesis during ***tomato*** fruit ripening.

L1 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI 1-Deoxy-D-xylulose 5-phosphate reductoisomerase and plastid
isoprenoid biosynthesis during ***tomato*** fruit ripening.

L1 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

TI 1-deoxy-D-xylulose 5-phosphate reductoisomerase and plastid
isoprenoid biosynthesis during ***tomato*** fruit ripening

L1 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

TI Manipulating ***isoprenoid*** expression in cells with prokaryotic
1-deoxy-d-xylulose-5-phosphate synthase

=> d l1 3-4 ibib ab

L1 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:683615 CAPLUS

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000044912	A1	20000803	WO 2000-GB263	20000128
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2360334	AA	20000803	CA 2000-2360334	20000128
EP 1144652	A1	20011017	EP 2000-901257	20000128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002535970	T2	20021029	JP 2000-596152	20000128
PRIORITY APPLN. INFO.: GB 1999-1902 A 19990128 WO 2000-GB263 W 20000128				
AB There is disclosed a method of manipulating ***isoprenoid*** expression in a cell or organism having a mevalonate independent isopentyl diphosphate synthesizing pathway, which method comprises altering the activity of the enzyme 1-deoxy-D-xylulose-5-phosphate synthase (DXPS), or a functional equiv., deriv. or bioprecursor thereof. Also disclosed is a transgenic cell, tissue or organism having a mevalonate independent IPP biosynthetic pathway which cell, tissue or organism comprises at least one transgene capable of expressing DXPS or a functional equiv., deriv. or bioprecursor thereof. A method of screening for compds. which modulate ***isoprenoid*** activity or expression, and use of such compds. as antibacterial drugs or herbicides, are also claimed. Isopentenyl diphosphate (IPP) acts as the common, five-carbon building block in the biosynthesis of all ***isoprenoids***. The first reaction of IPP biosynthesis in Escherichia coli is the formation of 1-deoxy-d-xylulose-5- phosphate, catalyzed by 1-deoxy-d-xylulose-5-phosphate synthase (DXPS). E. coli engineered to produce lycopene, was transformed with dxps genes cloned from Bacillus subtilis and Synechocystis sp. 6803. Increases in lycopene levels were obsd. in strains expressing exogenous DXPS compared to controls. The recombinant strains also exhibited elevated levels of ubiquinone-8. These increases corresponded with enhanced ***DXP*** ***synthase*** activity in the recombinant E. coli strains. Transformation of ***tomato*** plant is also described.				
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT				

=> tomato and transfor? and phytoene

TOMATO IS NOT A RECOGNIZED COMMAND

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=> s tomato and transfor? and phytoene

L2 59 TOMATO AND TRANSFOR? AND PHYTOENE

=> duplicate remove l2

DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

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=> s transform? and coli and dxp and synthase

L5 14 TRANSFORM? AND COLI AND DXP AND SYNTHASE

=> duplicate remove l5

DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L5

L6 8 DUPLICATE REMOVE L5 (6 DUPLICATES REMOVED)

=> d l6 1-8 ti

L6 ANSWER 1 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1

TI The mevalonate-independent pathway is expressed in ***transformed***
roots of Artemisia annua and regulated by light culture age.

L6 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

TI Engineering Escherichia ***coli*** for the synthesis of taxadiene, a
key intermediate in the biosynthesis of taxol

L6 ANSWER 3 OF 8 AGRICOLA Compiled and distributed by the National
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of America. It contains copyrighted materials. All rights reserved.
(2004) on STN DUPLICATE 2

TI Metabolic engineering of the nonmevalonate isopentenyl diphosphate
synthesis pathway in Escherichia ***coli*** enhances lycopene
production.

L6 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

TI Manipulating isoprenoid expression in cells with prokaryotic
1-deoxy-d-xylulose-5-phosphate ***synthase***

L6 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

TI Low-Copy Plasmids can Perform as Well as or Better Than High-Copy Plasmids
for Metabolic Engineering of Bacteria

L6 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

TI Studies on the nonmevalonate pathway

L6 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

TI Enzymes useful for modifying the production of isopentenyl pyrophosphate,
dimethylallyl pyrophosphate and/or isoprenoids

L6 ANSWER 8 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3

TI Expression of prokaryotic 1-deoxy-D-xylulose-5-phosphatases in Escherichia
coli increases carotenoid and ubiquinone biosynthesis.

=> d l6 4 8 ibib ab

L6 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:535291 CAPLUS

DOCUMENT NUMBER: 133:130772

TITLE: Manipulating isoprenoid expression in cells with

DUPLICATE 3

ACCESSION NUMBER: 1999:237140 BIOSIS
 DOCUMENT NUMBER: PREV199900237140
 TITLE: Expression of prokaryotic 1-deoxy-D-xylulose-5-phosphatases in Escherichia ***coli*** increases carotenoid and ubiquinone biosynthesis.
 AUTHOR(S): Harker, M.; Bramley, P. M. [Reprint author]
 CORPORATE SOURCE: School of Biological Sciences, Royal Holloway, University of London, Egham, Surrey, TW20 0EX, UK
 SOURCE: FEBS Letters, (April 1, 1999) Vol. 448, No. 1, pp. 115-119. print.
 CODEN: FEBLAL. ISSN: 0014-5793.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 ENTRY DATE: Entered STN: 17 Jun 1999
 Last Updated on STN: 17 Jun 1999

AB Isopentenyl diphosphate (IPP) acts as the common, five-carbon building block in the biosynthesis of all isoprenoids. The first reaction of IPP biosynthesis in Escherichia ***coli*** is the formation of 1-deoxy-D-xylulose-5-phosphate, catalysed by 1-deoxy-D-xylulose-5-phosphate ***synthase*** (***DXPS***). E. ***coli*** engineered to produce lycopene, was ***transformed*** with ***dxps*** genes cloned from Bacillus subtilis and Synechocystis sp. 6803. Increases in lycopene levels were observed in strains expressing exogenous ***DXPS*** compared to controls. The recombinant strains also exhibited elevated levels of ubiquinone-8. These increases corresponded with enhanced ***DXP*** ***synthase*** activity in the recombinant E. ***coli*** strains.

=> s tomato and transform? and dxp and synthase
 L7 1 TOMATO AND TRANSFORM? AND DXP AND SYNTHASE

=> d 17 1 ibib ab

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2000:535291 CAPLUS
 DOCUMENT NUMBER: 133:130772
 TITLE: Manipulating isoprenoid expression in cells with prokaryotic 1-deoxy-d-xylulose-5-phosphate ***synthase***
 INVENTOR(S): Bramley, Peter Michael; Harker, Mark
 PATENT ASSIGNEE(S): Royal Holloway and Bedford New College, UK
 SOURCE: PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000044912	A1	20000803	WO 2000-GB263	20000128
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,			

SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 CA 2360334 AA 20000803 CA 2000-2360334 20000128
 EP 1144652 A1 20011017 EP 2000-901257 20000128
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 JP 2002535970 T2 20021029 JP 2000-596152 20000128
 PRIORITY APPLN. INFO.: GB 1999-1902 A 19990128
 WO 2000-GB263 W 20000128
 AB There is disclosed a method of manipulating isoprenoid expression in a
 cell or organism having a mevalonate independent isopentenyl diphosphate
 synthesizing pathway, which method comprises altering the activity of the
 enzyme 1-deoxy-D-xylulose-5-phosphate ***synthase*** (***DXPS***),
 or a functional equiv., deriv. or bioprecursor thereof. Also disclosed is
 a transgenic cell, tissue or organism having a mevalonate independent IPP
 biosynthetic pathway which cell, tissue or organism comprises at least one
 transgene capable of expressing ***DXPS*** or a functional equiv.,
 deriv. or bioprecursor thereof. A method of screening for compds. which
 modulate isoprenoid activity or expression, and use of such compds. as
 antibacterial drugs or herbicides, are also claimed. Isopentenyl
 diphosphate (IPP) acts as the common, five-carbon building block in the
 biosynthesis of all isoprenoids. The first reaction of IPP biosynthesis
 in Escherichia coli is the formation of 1-deoxy-d-xylulose-5-phosphate,
 catalyzed by 1-deoxy-d-xylulose-5-phosphate ***synthase*** (
 DXPS). E. coli engineered to produce lycopene, was
 transformed with ***dxps*** genes cloned from Bacillus
 subtilis and Synechocystis sp. 6803. Increases in lycopene levels were
 obsd. in strains expressing exogenous ***DXPS*** compared to controls.
 The recombinant strains also exhibited elevated levels of ubiquinone-8.
 These increases corresponded with enhanced ***DXP*** ***synthase***
 activity in the recombinant E. coli strains. ***Transformation*** of
 tomato plant is also described.
 REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> tomato and dxr and transform?
 TOMATO IS NOT A RECOGNIZED COMMAND
 The previous command name entered was not recognized by the system.
 For a list of commands available to you in the current file, enter
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=> s tomato and dxr and transform?
 L8 3 TOMATO AND DXR AND TRANSFORM?

=> d l8 1-3

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:610132 CAPLUS
 DN 139:175849
 TI Plant genes for sequence homologs of methyltransferases of tocopherol
 biosynthesis and their use in engineering plant tocopherol profiles
 IN Norris, Susan R.; Lincoln, Kim; Stein, Joshua C.; Valentin, Henry E.; Van
 Eenennaam, Alison

PI WO 2002018617 A2 20020307 WO 2001-US27420 20010904
 WO 2002018617 A3 20030522
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
 US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 US 2002142408 A1 20021003 US 2001-938956 20010824
 US 2003003528 A1 20030102 US 2001-941947 20010829
 AU 2001088699 A5 20020313 AU 2001-88699 20010904
 EP 1328639 A2 20030723 EP 2001-968453 20010904
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 NO 2003000343 A 20030403 NO 2003-343 20030123
 PRAI US 2000-229858P P 20000901
 US 2000-229907P P 20000901
 WO 2001-US27420 W 20010904

=> s tomato and phytoene and transform?
 L9 59 TOMATO AND PHYTOENE AND TRANSFORM?

=> s tomato and phytoene and transform?
 L10 59 TOMATO AND PHYTOENE AND TRANSFORM?

=> duplicate remove l10
 DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
 KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
 PROCESSING COMPLETED FOR L10
 L11 37 DUPLICATE REMOVE L10 (22 DUPLICATES REMOVED)

=> d l11 11-21 ibib ab

L11 ANSWER 11 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2000:606017 CAPLUS
 DOCUMENT NUMBER: 133:262033
 TITLE: Metabolic engineering of astaxanthin production in
 tobacco flowers
 AUTHOR(S): Mann, Varda; Harker, Mark; Pecker, Iris; Hirschberg,
 Joseph
 CORPORATE SOURCE: Department of Genetics, The Life Sciences Inst., The
 Hebrew Univ. of Jerusalem, Jerusalem, 91904, Israel
 SOURCE: Nature Biotechnology (2000), 18(8), 888-892
 CODEN: NABIF9; ISSN: 1087-0156
 PUBLISHER: Nature America Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The carotenoid biosynthesis pathway in tobacco (*Nicotiana tabacum*) to
 produce astaxanthin, a red pigment of considerable economic value, was
 modified by metabolic engineering. To alter the carotenoid pathway in
 chromoplasts of higher plants, the cDNA of the gene *CrtO* from the alga
Haematococcus pluvialis, encoding .beta.-carotene ketolase, was
 transferred to tobacco under the regulation of the ***tomato*** Pds (